61

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Weekly Bulletin

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EDITOR

EAT MORE FRUIT.

By M. E. Jaffa, M.S.,
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In view of the approaching fruit season it may not be out of place to enter a plea for the larger use in the diet of fruit and fruit products.

Some years ago fruit was considered by the majority of persons as an accessory or supplementary food eaten for its agreeable flavor or supposed hygienic or medicinal virtues rather than a staple article of diet. Later, when the composition of fruits had been more carefully determined, it was realized that they were a source of carbohydrates, mainly sugar, and in the discussion of the food value of fruits at that time only the carbohydrates were emphasized; no mention was made of any other nutritional value. Our knowledge of fruit today, due to the progress of work in nutrition, is much more complete.

Among the many investigations, with reference to the nutritional value of the different foods, which have been carried on during the past decade there are three which stand out very prominently, namely:

1. Those relating to the biological value of the different proteins.
2. Those relating to the importance of mineral elements in nutrition.
3. Those relating to the vitamins and their role in nutrition.

Low in Protein Content.

In view of the fact that all fresh fruits, with perhaps the exception of some varieties of the avocado, are low in protein, they never can be considered as a material source of this most important nutrient and therefore in discussing this subject we do not have to concern ourselves with investigations in connection with the proteins. The results of the other two series of investigations, however, are vitally concerned with the discussion of the place of fruits in the diet and speak for the larger consumption of fruit by both old and young.

When considering the new phases of the nutritional worth of fruits we must not overlook the fact that the main source of calories in fruits is sugar. The consensus of opinion among physiologists and nutrition investigators is that the carbohydrates of our food and not the nitrogenous compounds are the source of muscular energy for the body. We can thus better appreciate, then, the high nutritive value of dried fruits. The average amount of carbohydrates, mainly sugar, in the dried fruit is about 62 per cent while the average amount of carbohydrates, mainly starch, in flour is 75 per cent. In other words, the carbohydrate element in the dried fruits is not very much below that noted for flour. If we refer these data to the grain itself then the carbohydrate content of dried fruits very closely approaches that of the grain. The same is true in regard to jams, preserves and other concentrated fruit products.

The object of this brief article is to present further data, based on late investigations, in order that we may more fully realize the high nutritional worth of fruits.

The importance of the mineral elements in nutrition has been but lately brought to the notice of the laity and too much stress can not be laid upon this point. We have in our foods two general classes of mineral matter, one, acid-forming elements, and the other, base-forming elements. In order that we may have the optimum conditions for growth and development in the young and health and activity in the adult we must have a proper balance between these two classes. Such a balance is impossible on a diet consisting of meat, eggs and the cereals in that the mineral elements of such a diet would be productive of an acid condition not desirable in the body. In order that this condition may be avoided it is essential that the diet contain a generous amount of fruits and vegetables. The chief mineral elements in the "acid-forming" foods are phosphorus, sulphur and chlorine. The counteracting basic elements in fruits and vegetables are mainly lime, magnesium and sodium. Again, fruits far outrank the cereals in content of iron so necessary to meet the demands of blood and tissue formation in the body. This is especially true of such fruit as raisins, prunes and figs which are, comparatively speaking, rich in iron. These facts alone would be sufficient, from the standpoint of nutrition, to call for a more generous representation of fruit in our daily menus.

Vitamins in Fruits.

The third important series of investigations above noted refers to the vitamin content of our foods. For the purpose of this article three facts must be accepted:

1. There are three types of vitamins, A, B and C; A being soluble in fat and B and C being soluble in water.
2. Vitamins are unidentified dietary essentials, therefore,
3. No diet can be complete without them.

It is admitted by all that there is no better source of vitamins A and B than milk, but, it must also be admitted that milk is not the only source of these vitamins. In this connection it is of great interest to note that with the increased number of studies that are conducted with reference to the vitamin content of our different fruits the more gratifying are the results, in that fruits are found to be, as a rule, an excellent source of vitamins B and C. Relatively little attention has yet been given the examination of fruits for vitamin A so that it is not possible to draw any definite conclusions on this point. The present knowledge of the value of fruits as sources of vitamins B and C is more than adequate to justify the liberal use of fruit as a staple article of food and not merely to consider it as an accessory or luxury.

The citrus fruits, while, as is the case with other fruits rating low in protein, are rich, comparatively speaking, in mineral matter and vitamins B and C, Osborne and Mendel found that in the fresh fluid form, orange, lemon and grape fruit juice were found to contain about the same concentration of vitamin B as does milk.

Citrus Fruits Valuable.

There is no *better* source of vitamin C than the juice of the citrus fruits. This statement is based on the findings of the investigators at the Lister Institute, London, who rate, with reference to content of vitamin C, fresh lemon juice, fresh orange juice, ripe onion and fresh cabbage juice as 100 and *all* other foods much lower. In order to emphasize this point it might be said that the next highest figure, 60, is quoted for tomato juice. These findings alone should call for a very extended use, and a much larger use than at present, of the citrus fruits and particularly the consumption of *lemonades* and *orangeades true to name*. In this connection there is a great opportunity for furthering the fruit industry by the *public demanding* at *soda fountains, lemonades* and *orangeades* made from *pure* juices and *not* the synthetic product now so plentifully at hand.

The nutritional value of the synthetic article, that is, the artificial product, lies mainly in the sugar of the syrup added, that is, the syrup which carries the artificial colors and the artificial flavors. Such a syrup has *no* nutritional value other than the sugar. It does not contain the *mineral matter* and *it does not contain the vitamins.* These two facts alone should be the reason for people demanding the *pure* article, particularly for the young and growing child. A glass of lemonade made from the juice of the lemon contains just as much sugar as does the artificial product, but, *in addition* contains the most valuable mineral matter and also the vitamins B and C, absolutely essential for the diet. It is therefore to be hoped that during the coming summer there will be in the light of these facts a much larger demand for orangeade and lemonade *true to name* and *not artificially made.* Not only does the pure article possess a far higher nutritional worth than the artificial, but it is decidedly more palatable and desirable.

The orange juice and lemon juice, also that of the grape fruit, are rich in potash and lime which are, as previously stated, very essential for the proper balancing of the total mineral elements of our diet, and in addition to this the ripe orange contains about 12.5 per cent of sugar which, as above indicated, is one of our best sources of energy for the human body.

Have Therapeutic Value.

In addition to the nutritional worth of fruits as outlined in the foregoing, there is a therapeutic or hygienic value which must not be lost sight of. Most fruits are more or less laxative due to the content of fiber, the small seeds, etc., they contain, or to salts in solution, or to both. Fruits supply also bulk so necessary for the properly balanced diet and so beneficial for optimum intestinal action.

Oranges and citrus fruits in general are used in invalid dietaries, their juice allaying thirst very effectively and it has been stated by physicians that orange juice can be borne often by even the most irritable stomach. Again, orange juice is a valuable addition to the diet of the infant for the purpose of insuring an adequate supply of vitamin C which is present in small amounts only in fresh raw milk.

Deciduous and citrus fruits can be eaten without restriction by those suffering from gout and kindred troubles.

In conclusion it should be said that if the diet of the average person included more of the foods of high biological value, rich in protein, mineral matter and vitamins, there would be no inducement for the manufacture and sale of the various vitamin preparations now so glowingly advertised in our daily press.

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Intravenous Use of Quinine in Malaria.

Limitations to the use of quinine intravenously in malaria treatment is the subject of a report by Dr. K. F. Maxcy just published by the U. S. Public Health Service.

When quinine is given intravenously by routine in malaria treatment it can hardly be claimed that the procedure is without danger. The sudden introduction of a concentrated solution into the blood stream tends to cause circulatory depression and distressing nervous phenomena. Accidental extravasation into the tissues at the point of injection is apt to cause local necrosis and sloughing. Against these dangers is the unquestionable rapidity with which the drug is brought into contact with the parasites in the blood stream. Except for this there is no clear evidence at present that in ordinary malaria infections the method is more effective than mouth administration in curing an acute attack, in ridding the blood of sexual forms, or in preventing relapse.

Its proper field of usefulness seems to be upon urgent clinical indications of two sorts: first, in cases in which prompt absorption by the gastro-intestinal tract, following mouth administration, is not to be expected because of violent gastro-intestinal disturbance or other cause, or in which it is impossible to give the drug by mouth on account of delirium, coma, etc.; and second, in cases which are gravely ill when first seen by the physician and in whom it is deemed imperative to secure immediate cinchonization. It does not seem necessary nor desirable to use the intravenous route of administration in the simple acute or chronic infections ordinarily encountered, whether tertian or aestivo-autumnal.

When the clinician decides that the method is warranted, the effect upon the patient must be borne in mind. Particularly is it necessary to be sure that the patient is not already suffering from circulatory embarrassment. The technique of the injection must be such as to minimize the danger of untoward effects by observing three cardinal principles: Careful aseptic technique; giving the drug in moderate doses and in dilution; and introducing the solution slowly.

All the precautions which are observed in giving a dose of salvarsan should be observed in giving quinine.

—U. S. P. H. Service.

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WHO KNOWS?

Why do we breed morons? Is it because we wish to have social ills and then organize and support societies for amelioration and reform? Who knows?

Why do we breed idiots? Is it because we wish to increase taxes to build asylums for them? Who knows?

Why do we breed mosquitoes? Can it be because we wish to have malaria? Who knows?

Why do we breed degenerates? Is it because we wish to increase taxes to build more institutions, and to relieve the miseries they bring? Who knows?

Why do we build and maintain hospitals? "To care for the sick, of course." Oh, yes, but why be sick? Is it because we haven't enough practical sense to keep well? Who knows?

Why do Americans spend five hundred million dollars annually for drugs? Is it because they like their taste, or is it because they have not yet risen out of the drug stage of ignorance? Who knows?

Is civilization an organization which aims to secure the survival of the unfit? Who knows?—Indiana Bulletin.

MORBIDITY.

Smallpox.

Only 30 cases of smallpox have been reported so far for the week ending May 27th. Of these 7 were in Hayward and two near Hayward, 4 in Calaveras County and the others were scattered in different parts of the state. San Diego has reported two cases of virulent smallpox in Mexicans who recently came over the border. These cases are in quarantine.

Typhoid.

Nine cases of this disease were reported last week. Two of these were reported from Sacramento and one from each of the following places: Kings County, Culver City, Riverside City, Riverside County, Orange County, Porterville and Los Angeles City.

Epidemic Encephalitis.

Four cases of epidemic encephalitis were reported, two in Los Angeles County, one from Berkeley and one from San Francisco.

Epidemic Cerebrospinal Meningitis.

Los Angeles reported one case and San Francisco one.

LIST OF DISEASES REPORTABLE BY LAW.

ANTHRAX
BERI-BERI
BOTULISM
CEREBROSPINAL MENINGITIS (Epidemic)
CHICKENPOX
CHOLERA, ASIATIC
DENGUE
DIPHTHERIA
DYSENTERY
ENCEPHALITIS (Epidemic)
ERYSIPELAS
FLUKES
FOOD POISONING
GERMAN MEASLES
GLANDERS
GONOCOCCUS INFECTION*
HOOKWORM
INFLUENZA
LEPROSY
MALARIA
MEASLES
MUMPS
OPHTHALMIA NEONATORUM
PARATYPHOID FEVER
PELLAGRA
PLAGUE
PNEUMONIA
POLIOMYELITIS
RABIES
ROCKY MOUNTAIN SPOTTED (or Tick) FEVER
SCARLET FEVER
SMALLPOX
SYPHILIS*
TETANUS
TRACHOMA
TUBERCULOSIS
TYPHOID FEVER
TYPHUS FEVER
WHOOPING COUGH
YELLOW FEVER

***Reported by office number. Name and address not required.**

QUARANTINABLE DISEASES.

CEREBROSPINAL MENINGITIS (Epidemic)
CHOLERA, ASIATIC
DIPHTHERIA
ENCEPHALITIS (Epidemic)
LEPROSY
PLAGUE
POLIOMYELITIS
SCARLET FEVER
SMALLPOX
TYPHOID FEVER
TYPHUS FEVER
YELLOW FEVER

Section 16, Public Health Act. All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious, or communicable disease, shall promptly report such fact to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known.

COMMUNICABLE DISEASE REPORTS.

Disease	1922				1921			
	Week ending			Reports for week ending May 27 received by May 31	Week ending			Reports for week ending May 28 received by June 1
	May 6	May 13	May 20		May 7	May 14	May 21	
Anthrax	0	0	0	0	0	0	0	0
Cerebrospinal Meningitis	4	3	1	2	2	2	2	1
Chickenpox	132	163	164	154	197	187	173	168
Diphtheria	119	126	118	110	132	140	141	151
Dysentery (Bacillary)	5	1	0	0	8	5	4	1
Epidemic Encephalitis	5	5	2	4	2	1	2	1
Gonorrhoea	109	95	60	52	143	57	67	102
Influenza	70	34	21	21	33	40	39	14
Leprosy	1	2	0	0	0	2	0	1
Malaria	4	2	4	0	5	3	4	5
Measles	15	47	33	42	435	452	489	393
Mumps	72	45	75	51	233	181	172	239
Pneumonia	176	63	77	57	83	52	53	47
Poliomyelitis	0	0	2	0	3	1	0	4
Scarlet Fever	91	143	130	105	88	114	138	115
Smallpox	35	37	38	30	116	126	74	93
Syphilis	99	133	113	70	138	56	47	76
Tuberculosis	141	157	206	147	176	116	177	159
Typhoid Fever	11	9	23	9	8	11	19	8
Whooping Cough	114	103	93	74	74	93	77	56

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